National Institute of Environmental Health Sciences

The ecology of emerging infectious diseases in migratory birds: An assessment of the role of climate change and priorities for future research

Author(s): Fuller T, Bensch S, Muller I, Novembre J, Perez-Tris J, Ricklefs RE, Smith TB, Waldenstrom J

Year: 2012
Journal: Ecohealth. 9 (1): 80-88

Abstract:

Pathogens that are maintained by wild birds occasionally jump to human hosts, causing considerable loss of life and disruption to global commerce. Preliminary evidence suggests that climate change and human movements and commerce may have played a role in recent range expansions of avian pathogens. Since the magnitude of climate change in the coming decades is predicted to exceed climatic changes in the recent past, there is an urgent need to determine the extent to which climate change may drive the spread of disease by avian migrants. In this review, we recommend actions intended to mitigate the impact of emergent pathogens of migratory birds on biodiversity and public health. Increased surveillance that builds upon existing bird banding networks is required to conclusively establish a link between climate and avian pathogens and to prevent pathogens with migratory bird reservoirs from spilling over to humans.

Source: http://dx.doi.org/10.1007/s10393-012-0750-1

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Zoonotic Disease

Zoonotic Disease: General Zoonotic Disease

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified